

Environmental and Societal Issues in Pulp Industry

A Case Study of PT. Toba Pulp Lestari, Indonesia

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Abstract- This research is to study about the environmental and societal issues in pulp industry of PT. Toba Pulp Lestari, Indonesia. The main aim of this case is to understand what are the actions taken by PT. Toba in addressing those issues and what are the challenges faced by company. The effect from business operation to environmental such as deforestation, soil erosion and water pollution is serious issues to society. Nevertheless, this company also has been successfully implemented CSR program to local communities. Moreover, analysis of the case study is conducted using SWOT analysis to determine strengths, weakness, opportunities and threats, afterwards using TOWS matrix to analyze the action business operation accordingly. Recommendations and solution are given at the end of the report based on the analysis. In conclusion, PT. Toba Pulp Lestari should resolve these issues to overcome the challenges faced by company. It is necessary for PT. Toba Pulp Lestari to have a good relationship with all direct and indirect stakeholders including community, non-government organization and government parties. Therefore, the company should give transparent report and publicly enclose their related answers and action to the issues. Thus, the implications of this case study will provide new strategy to improve green manufacturing in business operation. Consequently, it will resolve both company and society problem regarding the environmental and societal issues.

Keywords: *Environmental Issues, Societal Issues, CSR, Pulp Industry.*

I. INTRODUCTION

Indonesia has the potential to be a top 3 manufacturers in the pulp and paper industry in the world, partly because of the production of pulp and paper in the country benefited by various natural and geographical conditions at the equator. Currently, Indonesia is ranked 11th for the paper industry and 9th world for the pulp industry. Indonesia benefited from Indonesia's geographical location at the equator on average

have trees that grow three times faster than in the countries that are in cold regions, making available vast forests as a source of raw materials, but it is also located in Indonesia the middle of the emerging Asian economic giant into new markets the world's largest pulp and paper in the future. Global competition in the pulp and paper business is very high and environmental requirements applicable also becoming increasingly stringent. Moreover, energy-saving programs and environmentally friendly is today the demands of business, because the export destination countries and the buyers are increasingly demanding the pulp and paper produced from legal sources, which comes with an official certification regarding its legality. Especially for the Pulp and Paper Industry in Indonesia, today is growing and developing rapidly in line with the increasing consumption of pulp and paper usage. The development of this industry will continue to increase and supported also by the existence of Indonesia which have a comparative advantage, such as the potential of forest to supply the wood as raw material.

This potential will increase with the development program. Industrial Plantation Forest is now being implemented. Similarly, the availability of non- wood fibber raw materials is relatively abundant. The nature of business of PT Toba Pulp is clearly pruned to cause a negative effect to the environment and society. Based on some of the public complaints, PT Toba Pulp Lestari has affected the environmental such as water pollution problems, human health and also income affected. At present, the waste from the company flows to villages and homes around the plant population. Waste disposal has become a talking point, and damage the health of local residents. Many residents complained of the stench of sewage released when the plant operates. Waste disposal from the pulp operation also produce unpleasant scent and foul odor that could potentially cause environmental pollution and disturb the health. This is because of the pulp operation has yet to implement waste management to the maximum (Herman Hidayat, 2008). In addition, activities of industry such as deforestation with clear cutting trees from industrial forest plantation to get raw material causing a damaged ecosystem and protest from local community. It also has effect to soil erosion and air pollution to

environmental (Herman Hidayat, 2008). Therefore, this case study aims to analyze the impact of PT Toba operation to environment and society and what are the actions taken by PT Toba in addressing those issues.

What are the societal and environmental issues faced by PT. Toba Pulp Lestari? How PT. Toba Pulp Lestari address those challenges in their Corporate Social Responsibility programme? What are recommendations for PT. Toba Pulp Lestari to further improve CSR for creating strength and meeting the opportunity?

PT. Toba Pulp Lestari is company processing manufacturing Pulp in North Sumatera, Indonesia. Pulp is the raw material processed to create paper, and this material is made from wood which they get from Industrial forest plantation. In order performance business operation of PT. Toba Pulp Lestari has effect to environmental. Since this industry its establishment, have been positively and negatively issues affecting to the society. In other hand marketed pulp was successfully because of the demand of product is growing rapidly and also the product is increased every year. The target market pulp is export to International. Therefore, the program CSR also has influence to environmental and societal. The main aim of this case is to understand what are the actions taken by PT Toba Pulp Lestari in addressing those issues and what are the challenges faced by them.

A. Background of Case Study

Indonesia has several major pulp producers with almost all of their pulp mills located in North Sumatera. Two of these producers account for more than 75 percent of total Indonesian pulp capacity (Barr 2007). Indonesian producers obtain their wood from government-granted land concessions, which consist of natural forests and plantations that the producers have developed on formerly forested land. They also obtain wood from joint ventures with other landowners (APRIL 2009).

Indonesia is two largest pulp producers have increased pulp capacity faster than plantation development. Consequently, although they hope to eventually source all of their wood from plantations, they currently obtain much of it from natural forests (Barr 2007). Pulp capacity and production in Indonesia have experienced strong growth during the past decade; pulp production almost doubled, from 3 million metric tons in 1997 to 5.8 million (Metric tons in 2007 (Pulp & Paper International 1998; RISI, Inc. 2008).

Pulp is consumed domestically in the production of paper and also exported, principally to Asian countries. Indonesia has recently expanded its capacity to export wood chips. In late 2008, a new export facility for acacia wood chips opened on the east coast of the province of Kalimantan (Flynn, 2008). Although the volume of Indonesia is wood chip exports is considerably smaller than the wood chip exports of Chile and Australia, Indonesia is exports have increased in importance in some Asian countries. One large Japanese firm has invested in both acacia plantations and a pulp mill in Indonesia to take advantage of the country is forest resources (Marubeni Corporation 2009).

PT. Toba Pulp Lestari is one of largest manufacturing company in pulp industry in North Sumatera. The company was establishing in 1983. The raw material of the industry based from eucalyptus. The factory located at Pangombusan village (called Sosorladang), Dis-tric Porsea, Municipal Tobasa, North Sumatera Province, Indonesia. The company status was changed from private company to foreign company in 1990. Then the company decided to change the name of company from PT. Inti Indorayon Utama become to PT. Toba Pulp Lestari. Currently after changed the name of company the industry has established the commitment for Corporate Social responsibility from net sales which 1% should be contributing to the societies. The issue from this case is effect to environment such deforestation, water pollution and etc. PT. Toba Pulp Lestari also has challenges which are loss profit margin and local community opposition in effect to environmental such as deforestation, water pollution, soil erosion.

The Company is domiciled in Medan, North Sumatera, with its mill located in Sosor Ladang Village, Pangombusan, Parmaksian Regency, Residency of Toba Samosir, and North Sumatera. The Company's registered office is located in Uniplaza, East Tower, and address at Letjend. Haryono M.T A-1, Medan. PT. Inti Indorayon Utama was established in 1989. In accordance the main activities of the company is to manufacture pulp and viscose rayon; establish, carry out and develop Concession of Industrial Forestry and other industries to support the raw materials to manufacture pulp and viscose rayon; and to manufacture and market all products made up of those materials.

B. Industry Analysis

The Company is domiciled in Medan, North Sumatera, with its mill located in Desa Sosor Ladang, Pangombusan, Kecamatan Parmaksian, Residency of Toba Samosir, and North Sumatera. Company has 13 area work which is Asahan, Simalungun, Toba Samosir, Dairi, and North Tapanuli, South Tapanuli, West Tapanuli, Samosir, Hambang Hasudutan, West Pakpak, North Padang Lawas and last is Padang Sidempuan. The Company's registered office is located in Uniplaza, East Tower, and address at Letjend. Haryono M.T A-1, Medan. PT. Inti Indorayon Utama was established in 1989. In accordance the main activities of the company is to manufacture pulp and viscose rayon; establish, carry out and develop Concession of Industrial Forestry and other industries to support the raw materials to manufacture pulp and viscose rayon; and to manufacture and market all products made up of those materials.

The Company currently produces pulp which is being marketed in National and International market. The company also has its land concessions from which is grows and harvest wood for its pulp manufacturing operations. Pulp industry is one industry which has an important role and is the flagship product in supporting the Indonesian economy.

Pulp is manufactured from raw materials containing cellulose fibers, generally wood, recycled paper, and agricultural residues. Modern pulp production is based on the

best available technology and the philosophy to create more with less raw materials, water, energy and environmental effect.

Pulp manufacturing is more than energy self-sufficient generating wood-based bio energy for the national electricity grids. In addition, pulp manufacturing from softwood generates valuable by-products and production residues such as lignin, turpentine and tall oil which can be further processed to innovative products. The necessity for raw materials such as from HTI (Industrial Timber Plantation), for the pulp is significant. The government initially issued a policy obligating every pulp plant around 200,000-300,000 hectares of HTI. This investment for HTI usually reaches ten percent per capital for every factory and infrastructure, which could be worth US\$ 1, 5 billion.

Production Pulp in Indonesia, IPPA (Indonesian Pulp & Paper Association, 2007) reported that in 2007, there has been 10 integrated pulp and paper companies and three non-integrated pulp companies. During 2014 the supply of wood to the mill was achieved as per the target in running a sustained plantation, the Company is research and development program has produced high quality Eucalyptus clones and has planted 10,411 hectares. Through 2014, 14 types of best clones were produced and planned. All the clones have been tested and proved suitable to the soils, resistance to pests and diseases. It expected to produce higher yield in the future harvesting. Since 2009, the company has received certificate of variety protection for IND 32, IND 45, IND 47, and IND 61 from Farming Department. For 2014, the company could maintain its certificate such as PHPL and timber legality.

Indonesia Pulp and Paper companies have total installed capacity for pulp production for about 4.5 million tons or 70% of total production capacity of pulp companies in Indonesia (Table 1). They are also have ability to produce for about 2.9 million tons of paper or about 26% from total installed production capacity of paper companies in Indonesia; while among integrated pulp and paper companies they dominate for about 76% of paper supply.

TABLE I. PRODUCTION CAPACITY OF PULP AND PAPER COMPANIES 2014 IN INDONESIA

No	Company	Installed Capacity (tonnes)	
		Pulp	Paper
INTEGRATED PULP AND PAPER			
1.	PT. Kertas Bekasi Teguh	90,000	150,000
2.	PT. Eureka Aba Paper Factory	30,500	40,000
3.	PT. Indah Kiat Pulp & Paper	1,980,000	2,163,000
4.	PT. Kertas Kraft Aceh	165,000	135,000
5.	PT. Kertas Leees	72,000	195,000
6.	PT.LontarPapyrusPulp&Paper Industry	701,000	352,500
7.	PT. Kertas Padalarang	3,000	7,900
8.	PT. Pabrik Kertas Indonesia (Pakerin)	145,000	700,000
9.	PT. Pola Pulpindo Mantap	42,000	32,000
10.	PT. Riau Andalan Pulp & Paper	2,000,000	350,000
PULP (NON-INTEGRATED)			
1.	PT. Kertas Nusantara (PT. Kiani Kertas)	525,000	-
2.	PT.TanjungEnimLestariPulpand Paper	450,000	-
3.	PT. Toba Pulp Lestari	240,000	-

Source: IPPA, 2014

Manufacturing Process of PT. Toba Pulp Lestari is cover raw material, manufacturing process flow and also waste management in business operation. The process whereby timber is converted into paper involves five steps. The first four convert the logs into a mass of cellulose fibres with some residual lignin using a mixture of physical and chemical processes.

This pulp is then bleached to remove the remaining lignin and finally spread out into smooth, pressed sheets (often with chemicals added to provide particular properties such as colour or water resistance). Steps to process the pulp which is: Wood preparation, Cooking, Pulp washing, Pulp screening, and Bleaching.

Comparative Advantages over other Countries, the pulp and paper industry in Indonesia is ranked 3 in 2013 than other countries and is still open to further development. This is because of Indonesi is supporting factors and comparative advantage in terms of land coverage, surplus, labour, raw material supply, the benefit of being closer to the Asian market (China, Japan, etc.), lower transportation costs and the ability of Indonesia to produce the appropriate climate for fast growing trees such as raw material *eucalyptus*. For example, in terms of economic, cost of pulp comparison with other producers, which Indonesia is is increased 14,6 % per year estimated (US\$425 per ton), compare United States at 12,6% estimated (US\$410 per ton), Canada relatively low cost of just 9,3% estimated (US\$300 per ton), Brazil is number second the highest one after others country which Brazil at 24,2% estimated (US\$440 per ton) and the highest is Others country at 39,2% estimated (US\$510 per ton) (Farid Harianto, 2008).

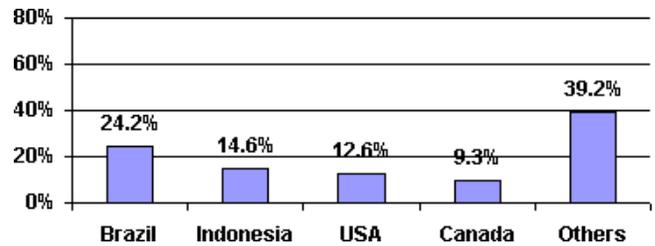


Fig. 1. Pulp Cost Comparison of Major Producers Countries, 2013
Source: www.pulpindustryworld.com, 2013

PT. Toba Pulp Lestari situation market is stable enough, in 2014 production company last year about 197.000 tons and the target of the sale of the year 2015 about 200,000 tons. Indonesia was the ninth of pulp exporter that supply the world market. Main export destination countries are China, Korea, Italy and Japan. The high demand for pulp for China seems to rise in the same way with the increasing of the economic activities and thus per capita income (Tobapulp, 2014).

II. METHODOLOGY

In this research, I used both of primary data and secondary data. Primary data which is information will be collected through individual depth interview and on field observation in PT. Toba Pulp Lestari. Interview is useful to gather subjective perspective from interviewees. Interviewees also can respond

freely to the question asked. Qualitative questions get from interviewed session which involved mostly as open-ended questions were asked in the semi-structured interviews.

The target interviewees for this research were Director (One of the founders of PT. Toba Pulp Lestari), Manager Marketing, Human Resource Department and Legal Department. The interviews were conducted for at least 45 minutes in each interview session. Secondary data collection was done through reading, interpreting, and extracting key points from the public and non-public domain documents. The secondary data were from Internet, company website, Government website, Indonesia Stock Exchange (website Idx) and reliable news media website.

The analysis of this case study will starts with external and internal environment as the input to SWOT analysis, and follows by TOWS analysis in order to guide the research, elaborate and evaluate the data findings and provides recommendations to the organization. For the Secondary data, I chose the case study as the research methodology for this work because it allows us to verify, illustrate and construct theory (Coller, 2001). Using this method, the theory construction process can be based not only on the literature, but also on the consideration of empirical observations or reality experiences (Carroll and Swatman, 2000). Therefore, it becomes easier to assess the propositions developed, as variables have already been measured during the theory construction process. In order to overcome some of the limitations of this methodology, we corrected potential personal biases associated with the researcher and/or the informants using the triangulation technique, through a combination of three methodologies: performing personal interviews and surveys among environmental managers; direct observation (visits to firm premises and contact with employees); and access to documents, both internal (in-house information bulletins, environmental declarations, annual reports for the 1997–2003 period) and external ones (press, web pages, registries of companies, SABI database).² This technique reinforces the conviction that the result is valid and not only a methodological trick (Bouchard, 1976), providing a stronger validation of results if they converge (Yin, 1994). As for the possible bias related to lack of rigour in the compilation of materials, their analysis and the elaboration of conclusions, we tried to reduce it through a detailed review of the literature.

III. CASE ANALYSIS & FINDINGS

For this case analysis, the overall this study of PT. Toba Pulp Lestari used are SWOT Analysis and TOWS Analysis to identify the problems faced by PT. Toba Pulp Lestari in North Sumatera, Indonesia.

Based on the SWOT Analysis has demonstrated the strength of PT. Toba Pulp Lestari in terms of market production to International such as China, Japan, US, Middle East, and also Western Europe. This company has strong relationship with these countries. Meanwhile, PT. Toba Pulp Lestari implements and develops their CSR/CD programme to Environmental and Societal. And these programme continuously sustainable until now. In addition, PT. Toba Pulp Lestari also has received

several recognition and awards form Minister of Environmental Indonesia, as mentioned in chapter 6 earlier. PT. Toba Pulp Lestari is seen to be stronger than other pulp industries.

From the SWOT analysis, it shown that PT. Toba Pulp Lestari has a weak status compared than other pulp industries. There are several obstacles and weaknesses within the company. In terms of weakness is found that there are several factors that undermine the operation of PT. Toba Pulp Lestari which causing environmental problem due to deforestation from natural forest.

Industry pulp needed raw material such as wood from the industrial forest plantation. Meanwhile, causing deforestation affected to damage environmental and societal. The issue facing the company getting reactive to society meaning to that they were slowly respond to responsible these problem. In fact, noticed that lack of infrastructure in irrigation waste system. This could affect to society such as human health and also income affected. However, with CSR/CD programme which net sales 1% every year has contributes to local communities, company believes could solving these problem. And also will provide many new opportunities for company to rising awareness of green technology in their business operation. By using this SWOT Analysis, PT. Toba Pulp Lestari can identify and find ways to enhance the company's strength and overcome its weaknesses that can reduce the issues in local communities.

PT. Toba Pulp Lestari could make use of the result from SWOT Analysis in order to identify opportunities that can be used for improvement, which can increase its level of CSR/CD in the business operation pulp. This analysis will help PT. Toba Pulp Lestari to find solutions to eliminate obstacles into opportunities for the company to reduce the environmental and societal issues and also reducing the causing of problem.

Lastly, PT. Toba Pulp Lestari with TOWS Analysis, which is applicable as a guideline for the company to solve the problem with more strategic planning to upgrade its level of CSR/CD, marketing product, and positive market growth and also strengthen PT. Toba Pulp Lestari status in the industry pulp in Indonesia. This TOWS Analysis can be used by PT. Toba Pulp Lestari provide and develop the strategic by using green technology and product. In other meaning, this can reduce deforestation to preserve environmental for the further. Therefore, with discipline adhere to the principles of continuously sustainable, this company will reducing the risk of to the environment.

Moreover, This TOWS Analysis can be used by PT. Toba Lestari as industry pulp, with strengths and potentials to enhance its positions in the market. This analysis could be used to obliterate company's weaknesses and obstacles in developing CSR/ CD program to solving the opposition from local communities causing environmental problem. And also this analysis aims to improve forest management principles to reducing deforestation and water pollution.

IV. CONCLUSION AND RECOMMENDATIONS

A. Conclusion

PT. Toba Pulp Lestari overall has good performance growth in pulp industry in Indonesia. It is proven with the growing demand of the industry for both domestic and global. Thus, it shows the strength of the company and the opportunity that they can grasp in the future coming. In addition this company also has successfully with CSR programmed to local communities. Moreover, if the company could overcome the weaknesses in dealing with the current issue they will prosper even more. Hence, the conclusions can be summarized to overcome the challenges faced by company. PT. Toba Pulp Lestari should have good relationship with all direct and indirect stakeholders including community, non-government organization and government parties. If there is problem arising or any issue commented by the stakeholders, the company should engage with them. Also, they should give feedback in order to address the stakeholders concern. Therefore, the company should give transparent report and publicly enclose their related answers and action to the issues. Thus, the contribution of this case study will provide new strategy to improve green manufacturing in business operation.

Consequently, it will resolve both company and society problem regarding the environmental and societal issues. Hence limitation for this case study is time constraints for interview and also confidentiality. Enhance knowledge on the current issues.

Therefore, less studies have taken place in Indonesia regarding about this case, therefore more information will be add in the body on literature review and provide more information for the future researcher.

B. Recommendations

1. Building Strengths And Overcoming The Weaknesses

In order to solve environmental and societal issue, the company should be building strength and also to overcome the weaknesses. With regard to scenario analysis, the prioritization scheme that will be discussed here focuses on Identify key success factors and core competency and improvisation of the weaknesses challenges. Moreover, government and also stakeholder should be participating with these matters. Thus, management improvements are also discussed.

2. Identify Key Success Factors and Core Competency

Key Success is the term for an element which necessary for an organization or project to achieve its mission. It is a same meaning with critical factor or activity required for ensuring the success of a company or an organization. These are the factors within the control of the operator and which should be followed in order to be successful:

Four key success factors, these factors are key indicators measure the success of PT. Toba Pulp Lestari which is: Product development, CSR strategy focus, global market, technology and system.

- *Product development:* PT. Toba Pulp Lestari is company with produce specialty product which is pulp. Because of company as a low cost producer make demand growing

rapidly become increased every year and also. Additional PT. Toba Pulp Lestari is only one company manufacturing pulp in Indonesia, and the company also has its land concessions from which it grows and harvest wood for its pulp manufacturing operations. However, from the point of view of quality of products this company could be categorized as innovative. For example raw material paper base from pulp which this pulp not could only making paper but could making writing paper, newsprint, tissue are categorized as paper products considered to show more progress in the future. It can be said, product development because of low cost of raw material.

- *Global Market:* The global market, supply and demand balance is practically determined by world largest paper producers such US, Japan, china, Western Europe. For example demand for pulp product accounted for approximately 18, 5% in 1995, growing from only about 101% in 1985.

However, in the 2000s the demand for pulp products is rapidly growing in Asia- Pacific and others countries. Obviously, this growth is closely related with economy activity. The position of Indonesia became number nine among the major countries with the largest pulp production. Therefore, there is a correlation between increasing pulp productions with world consumption of paper. China is main export market for pulp and following another country such as Japan, Western Europe, Middle East, US, and Canada. Therefore, it can be said the key success factor of company cause develop financial company from global market.

- *CSR Strategy Focus:* PT. Toba Pulp Lestari is committed in its local community development (CD)/CSR programme to raise living standard, provide employment opportunities and develop business leaders to undertake outsourced activities. Consequently with improved relationship resulting in no social interruption of business operation. Besides the contribution 1% of net sales for community development, the introduction of integrated farming system animal husbandry these programme has help raised much needed income base of surrounding of local community. Total contribution fund for 11 years (2003-2013) is IDR 95.415 billion. CSR programme of the company covers economic area, health, education and social area. For the appreciation of the implementation CSR programme, company received several awards, which proper certificate of green rating awards form Minister Environmental Indonesia.
- *Technology:* Based on technology PT. Toba Pulp Lestari used technology for pulp processing machines made in Finland. TPL engineers took specialized courses under home training with master the technology. At present, it is well known that quality of product PT. Toba Pulp Lestari can said is good. In the term of manufacturing process company needs technology such as debarking drum for screening the

pulp and bleaching until last processed. It can be said the company continuously improvement technology and system.

3. Improvisation of the Weaknesses Challenges

Company should do improvisation of the weaknesses challenges, which are enhance green manufacturing and practices, become proactive rather reactive and last but not least advance technology adoption will be discussed.

- **Enhance Green Manufacturing & Practices**

Deforestation is a serious issue in the world and also in developing countries such Indonesia. So to resolve this issue needs to work toward sustainable agriculture methods such as direct sowing, mulch based and conservation agriculture and also collaboration with government, NGO's, investors, society, forest community, private owners need efforts and agreement to redress environmental problems, there were global calls for cooperation, action, and innovation. Governments can reduce deforestation through adequate funding of programs designed to enforce environmental legislation, support for economic alternatives to extensive forest clearing (including carbon crediting), and building institutional capacity in remote forest regions. Seen from activities business operation by PT. Toba Pulp Lestari where this company causing environmental and societal problem. Therefore the Company should enhance green manufacturing to avoid the issues faced by company. In addition the company needs to resolve the conditions to preserve the forest such as: reforestation industrial plantation forest, prohibit deforestation in an arbitrary manner (human error), implement the new strategy which are before the cutting the tree. Hence, the industry should choosing the tree for good woods so meaning that's this action can be avoid damaging ecosystem, flooding, air pollution, water pollution.

- **Become proactive rather reactive**

This company should be prepared for any possible problem that might happen in the future and also should have risk mitigation. A proactive company is one that places greater emphasis on forward-thinking strategic planning as opposed to reactive strategies to deal with problems or to approach opportunities as they arise. Being proactive offers a business a lot of advantages when approaching business opportunities and managing problems.

- **Advance Technology**

Company should to provide a new technology with buy special machine for irrigation waste pulp so that can be resolve water pollution. The technology for avoid pollution and environmentally friendly. This can be improve the weaknesses of challenges.

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TABLE II. INTERVIEW SESSION

Position	Business Department	Date
Director	Overall Business Development	March 14, 2015
Organization Unit Manager	Marketing	February 23, 2015
Organization Unit Manager	Legal	March 29, 2015
Organization Unit Manager	Human Resource Management	March 29, 2015

TABLE III. SWOT ANALYSIS OF PT TOBA PULP LESTARI

Strengths (Internal)	Weakness (Internal)
<ol style="list-style-type: none"> 1. International market of production 2. Toward establishing responsible company • Strategic and continuous CSR programme 3. Received awards and recognition from Minister of Environment Indonesia 	<ol style="list-style-type: none"> 1. Environmental problem 2. Reactive to society 3. Lack of infrastructure in irrigation waste water
Opportunities (External)	Threats (External)
<ol style="list-style-type: none"> 1. Rising awareness of green manufacturing and green products 2. Potential growth of industry forestry in Indonesia. 3. Comparative advantage in term of raw material and labor cost 4. Rapid demand growing for pulp industry product. 5. The reputation of the company getting better 6. The number of people potentially become employees 7. Increase income level of the communities 	<ol style="list-style-type: none"> 1. Local community opposition such as road protest and demonstration 2. Social gaps 3. The global market competitor such as Canada, United States, Japan, China and Western Europe.

TABLE IV. TWOS ANALYSIS OF PT TOBA PULP LESTARI

Strengths-Opportunities Strategies	Weakness-Opportunities Strategies
<ol style="list-style-type: none"> 1. Rapid demand growing for pulp industry will provide an opportunity for PT. Toba Pulp Lestari to develop their products to International markets. 2. Successfully of PT. Toba Pulp Lestari in contribute CSR programme to community. This could an opportunity company to received awards and recognition from Minister of Environment Indonesia. 3. Since PT Toba Pulp Lestari was established, will provide opportunities to local community, will help to population potentially become employees and increase income level of the communities. 4. PT. Toba Pulp Lestari has been received several awards from Minister of Indonesia has a chance promote reputation of the company getting better. 5. Comparative advantage in term of raw material and labour cost, Indonesia is one of country has cheap labour, raw material and cost. This could provide an opportunity to market their product to International. 	<ol style="list-style-type: none"> 1. Forestry being an area plantation of industry pulp to get raw material such as wood. As known that Indonesia is one of the largest forest resources in the world. This could provide an opportunity of PT. Toba Pulp to potential growth of industry forestry in Indonesia. 2. Forestry being operation business of PT. Toba Pulp Lestari to get wood for producing pulp. Will provide opportunity to comparative advantage in term of cheap of raw material to market their product. 3. Deforestation and water pollution causing environmental problem affected income level local communities. This could an opportunity for company, Stakeholders to improve and develop awareness of green technology in manufacturing product to reduce deforestation and also to preserve the environment.
Strengths-Threats Strategies	Weakness-Threats Strategies
<ol style="list-style-type: none"> 1. With cheaper of cost, raw material, labour making market of pulp growing rapidly to international. This allows Pulp industry compete with others competitor such as Canada, United States, Japan, China and Western Europe. 2. Corporate Social Responsibility/ CD programme of PT. Toba Pulp Lestari which 1% contribution to the community could not able to cover environmental and societal damage. This could provide a threat from local community opposition such as road protest and demonstration 	<ol style="list-style-type: none"> 1. Forest is one of plantation to provide industry pulp and this also causing environmental problem. This could provide a threat to local community opposition such as road protest